

Eczema

Eczema is also called Atopic Dermatitis. It is a skin condition that can occur at any age. It is considered a chronic disease, but that doesn't mean it will be present the patient's whole life. It typically comes and goes depending on the season, geographical location, and age. It's caused by an abnormal response of the patient's immune system. Many patients who have eczema frequently have asthma or allergic rhinitis. It is also common to have a family member with one of the same conditions.

Eczema can occur in several relatively predictable patterns. Itching and inflammation are the hallmarks of the disease. Inflammation occurs in the skin which causes an itch. Scratching actually increases the inflammation which causes an even stronger itch sensation. Shortly after the scratching occurs, the rash appears. It is called the “**itch** that **rashes**.” In most cases, the degree of inflammation is associated with the dryness of the skin. Thus, successful treatment involves:

1. **Controlling inflammation**
2. **Preventing dry skin**
3. **Control the itch/scratch phenomenon**

Currently there are two main theories promoted to treat patients. They have conflicting instructions, but when followed closely, both are typically successful.

The **dry method** involves reducing the number of baths. The skin normally has natural oils that create a barrier to prevent water loss. By allowing 3-5 days between baths, the oils of the skin are allowed to build up and better protect the skin. Therefore, the skin remains hydrated and decreases inflammation and ultimately itching. The main advantage is that this is less labor intensive, it is an easier method to follow.

The **wet method** actually promotes baths. It is recommended to take a bath daily, sometimes even more frequently. Taking baths allows the skin to absorb water and ultimately help it decrease inflammation. However, these baths need to be relatively short (5 – 10 minutes). Also, they can't be too warm; the temperature needs to be as close to room temperature as tolerated to avoid dissolving the oils in the skin and becoming more vulnerable to the skin drying. In addition, within 3 minutes of leaving the bath, the skin must be patted dry quickly and apply a generous layer of directed emollient to the body. The emollient acts like an artificial oil to the skin and seals the water into the skin. The main advantage of this technique is that the wet/hydrated skin will allow medications to penetrate better. Also, bathing continues to keep the natural bacterial load down which helps prevent infections. Sometimes infections set into the broken-down skin and complicate treatment.

Treatment

There are many lotions, creams, ointments, and other products for treatment. We like to always start with treatment that involves the least amount of medication (mostly referring to steroids). However, that means the basics for treatment need to be followed closely to avoid relying on medication, especially the steroids: preserve the oils of the skin and keep the skin hydrated.

Lotions, Creams, Salves, ointments???

Emollients are necessary for the hydrating process, especially in the “Wet Method” Here are some general principles given by a pediatric dermatologist:

Vaseline (Petroleum jelly or petrolatum): fall and winter months

Aquaphor: fall or winter months

Eucerin (Vaseline + Mineral Oil): spring and summer months

Cetaphil: spring and summer months

Tricerem: This is a new product developed to be the same ratio of different kinds of fats found in the skin. It is only available at www.osmotic.com or www.tricerem.com. It is non-prescription, but it is expensive (\$30 a tube), and currently not proven.

Creams are used to limit absorption. They don't penetrate the skin, but helps limit the amount of medication that reaches the body. They can be a safer product on the places with thin skin and the infants.

Ointments burn less on the skin and they penetrate the skin better. When used with a steroid, they can increase the amount absorbed.

Lotions and solutions are rarely used in the treatment of eczema. Creams and ointments are thicker and provide better artificial barriers. Lotions may be helpful for maintenance for mild cases of eczema or simply dry skin.

Steroids

These are the most effective medicines in treating and controlling eczema. Unfortunately, chronic use of steroids can have side effects. Steroids can be absorbed in the skin and suppress the body's natural steroid production. Therefore, it is important to follow the instructions by your doctor. For most cases of eczema, you will be advised to stop using steroids after 10-14 days. You should only apply it to the affected areas that are experiencing a flare (exacerbation). Also, when the face, axilla (arm pits), and groin areas are affected, you will likely be told to apply to these areas only once a day because these areas have thin skin and lots of blood supply which increases their absorption.

When applied too long, skin changes can occur. When used as directed, the side effects and adverse reactions are negligible. Some parents are concerned that the steroid causes color changes or light patches on the skin. Normally these patches are caused by the chronic inflammation suppressing the formation of pigment. Steroids are useful in reversing this process.

Cortaid and Westcort are usually the first two steroid products used. They are hydrocortisone creams. Triamcinalone is a stronger steroid and comes in both a cream and ointment.

Non-steroidal immunomodulators (Calcineurin inhibitors)

These medications are Elidel and Protopic. They are new and developed specifically for eczema treatment and have provided a great advantage because we can use them without using steroids. They are not sufficient to treat flares, steroids will likely be required. They can be used safely with the steroids and intensive hydration strategies. While they continue to be a safe product when used appropriately, we are finding that because they suppress the immune system, consequences can be experienced. A few people on these medications have been found to have a skin cancer. They didn't necessarily cause the skin cancer, but because they stopped the immune system from doing its normal job, the cancer was able to start. It will likely take a few years for the specific recommendations to be realized. Therefore, I recommend a drug holiday after 4-6 weeks of use. While there is not research to validate this recommendation, a few weeks off the Elidel or Protopic should give the immune system adequate time to complete its job so the medication can be safely restarted.

Antihistamines

These medications aren't usually necessary to treat eczema successfully. However, they do have a role in treatment. Patient's who have a lot of seasonal allergies are likely to benefit from an antihistamine. Also, children often times have difficulty sleeping during flares of eczema. The sedating antihistamines (typically benedryl) can help the child sleep better.

Other Antihistamines: Claritin (loratadine), Zyrtec (Ceterizine), Atarax (hydroxyzine)

Antibiotics

Sometimes an eczema flare doesn't improve with the normal treatment. During these episodes, it is possible that the skin is infected with bacteria. Bacteria prevent the skin from improving and must be treated as well. For most patients we use Keflex (Cephalexin).

Soaps:

It is recommended that soaps without perfumes be used. Lever and Dove are the 2 most recommended soaps. Some people use Aveeno and Cetaphil for the soap product.

Final Notes:

For most cases of eczema, plan to apply your moisturizer twice a day (eucerin or aquaphor are the typical ones). Especially be prepared to use these after a bath. The winter months are typically the worst for most people because of the dry air. However, summer months can be a battle as well. The heat can be irritating and cause the “prickly heat phenomenon” starting the inflammation and itching cycle. Often times using too much emollient will aggravate the skin.